



## Complete Summary

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### GUIDELINE TITLE

Normal requirements - adults.

### BIBLIOGRAPHIC SOURCE(S)

Normal requirements - adults. JPEN J Parenter Enteral Nutr 2002 Jan-Feb; 26(1 Suppl): 22SA-24SA. [18 references]

## COMPLETE SUMMARY CONTENT

### SCOPE

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INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT

### CATEGORIES

IDENTIFYING INFORMATION AND AVAILABILITY

## SCOPE

### DISEASE/CONDITION(S)

Malnutrition

### GUIDELINE CATEGORY

Management  
Treatment

### CLINICAL SPECIALTY

Family Practice  
Gastroenterology  
Internal Medicine  
Nutrition

### INTENDED USERS

Advanced Practice Nurses  
Dietitians  
Hospitals

Nurses  
Physician Assistants  
Physicians

#### GUIDELINE OBJECTIVE(S)

- To revise the 1993 American Society for Parenteral and Enteral Nutrition Clinical Guidelines so that:
  - The Guidelines are factually up-to-date to reflect current, evidence-based, best approach to the practice of nutrition support
  - The Guidelines support the clinical and professional activities of nutrition support practitioners by articulating evidence-based recommendations upon which to base personal and institutional practices and resource allocation
  - The Guidelines serve as tools to help guide policy makers, health care organizations, insurers, and nutrition support professionals to improve the systems and regulations under which specialized nutrition support is administered
- To assist clinical practitioners who provide specialized nutrition support to patients in all care settings

#### TARGET POPULATION

Adults receiving enteral or parenteral specialized nutrition support (SNS)

#### INTERVENTIONS AND PRACTICES CONSIDERED

##### Determination of Nutrient Requirements

1. Guides for planning individual nutrient intake (Dietary Reference Intakes [DRI])
  - Recommended Dietary Allowances (RDA)
  - Adequate Intakes (AI)
  - Uppermost RDA/AI value
2. Assessment of body composition/function
3. Patient specific calorie requirements
  - Predictive equations
4. Determination of individual dosing weight
5. Appropriate ranges for:
  - Carbohydrates and lipids
  - Protein needs
  - Water requirements
  - Electrolytes
  - Vitamins
  - Trace elements (e.g., minerals)
  - Fiber (for enteral nutrition)

#### MAJOR OUTCOMES CONSIDERED

Not stated

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

### NUMBER OF SOURCE DOCUMENTS

Not stated

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

A modified version of the method used by the Agency for Healthcare Research and Quality (AHRQ), US Department of Health and Human Services was used:

- A. There is good research-based evidence to support the guideline (prospective, randomized trials).
- B. There is fair research-based evidence to support the guideline (well-designed studies without randomization).
- C. The guideline is based on expert opinion and editorial consensus.

### METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

### DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Experts selected for their detailed knowledge and experience in a chosen niche reviewed the primary literature, synthesized and summarized it, and formulated the guideline statements.

In situations where evidence-based recommendations could not be made because of a lack of relevant clinical studies, recommendations are classified as being based on class C data (see the "Rating Scheme for the Strength of Evidence" field) and reflect an attempt to make the best recommendations possible within the context of the available data and expert clinical experience.

#### Issues Considered During Recommendation Formulation

- A thread running throughout many of the disease-specific guidelines is the rationale for choosing enteral over parenteral specialized nutrition support (SNS) or alternatively parenteral over enteral when a decision to use SNS has been made.
- Another fundamental issue that influenced many of the discussions and recommendations is the relationship between nutrition assessment, nutrition status, malnutrition, and severity of disease.

Refer to the companion document: Guidelines for the use of parenteral and enteral nutrition in adult and pediatric patients. Section I: Introduction. JPEN J Parenter Enteral Nutr 2002 Jan-Feb;26(1 Suppl): 1SA-6SA.

#### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

#### COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

#### METHOD OF GUIDELINE VALIDATION

External Peer Review  
Internal Peer Review

#### DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Completed drafts were reviewed by the section editors (the members of the Clinical Guidelines Task Force [CGTF]), edited and/or rewritten, and then reviewed twice by the members of the CGTF as a group. The entire document was then reedited by the CGTF Chair. This four-times–edited draft was submitted to the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) Board of Directors and more than 180 experts in the field of nutrition support including experts and organizations outside of A.S.P.E.N.) for content, format, and style review. These reviewers were also specifically asked to check each guideline statement for appropriateness, accuracy, and strength of evidence. This review phase stimulated a final cycle of editing by the CGTF and the CGTF Chair. The final document was then approved by the A.S.P.E.N. Board of Directors and submitted to the Journal of Parenteral and Enteral Nutrition for publication.

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The strength of the evidence supporting each guideline statement is coded A, B, or C. Definitions of these classifications is provided at the end of the "Major Recommendations" field.

#### Normal Requirements - Adults

1. Determination of nutrient requirements should be individualized, based on assessment of body composition and function, and fall within acceptable ranges, while taking physiologic and pathophysiologic conditions into account. (B)

Refer to the original guideline document for:

- Table I - Daily electrolyte requirements (see errata)
- Table II - Daily vitamin requirements (see also errata for additional note)
- Table III - Daily trace element requirements

#### Definitions:

#### Rating Scheme

- A. There is good research-based evidence to support the guideline (prospective, randomized trials).
- B. There is fair research-based evidence to support the guideline (well-designed studies without randomization).
- C. The guideline is based on expert opinion and editorial consensus.

### CLINICAL ALGORITHM(S)

Clinical algorithms of the Nutrition Care Process and Route of Administration of Specialized Nutrition Support are provided in the companion document: Nutrition care process. Section II: Nutrition Care Process. JPEN J Parenter Enteral Nutr 2002 Jan-Feb;26(1 Suppl): 7SA-8SA.

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not explicitly stated.

- There are few studies that have critically evaluated the influence of nutrient dosing via specialized nutrition support (SNS) on body composition or function. Requirements are based on available information.
- Nutrient requirements for enteral nutrition can reasonably be based on the Food and Nutrition Board, Dietary Reference Intakes (DRIs).

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

The dosing ranges for enteral and parenteral nutrients provided in Tables I through III in the original guideline document are considered acceptable reference points to meet individual patients' estimated requirements.

### POTENTIAL HARMS

The inherent limitation to the application of the Food and Nutrition Board, Dietary Reference Intakes (DRIs) or more specifically the Recommended Dietary Allowance (RDA)/Adequate Intake (AI) levels, is that they are designed to be met from a usual diet for healthy individuals to prevent deficiencies and, where the data exist, to minimize the risk from nutrition-related chronic disease and developmental disorders. Although they take into account individual variability, they are not intended for use in people with acute or chronic disease. (The uppermost RDA/AI value of each nutrient can serve as a reference point for specialized nutrition support (SNS) in nonpregnant/nonlactating adults.)

- Although there is no "standard" enteral nutrition (EN) or parenteral nutrition (PN) formulation for a "normal" adult requiring SNS, surveys reveal that patients frequently receive standard formulas that provide excess energy. Current energy allowances by the Food and Nutrition Board and the World Health Organization may overestimate or underestimate requirements for many individuals, given the variability both in energy expenditure and its measurement. The requirement for energy, in kilocalories (or kilojoules), is patient specific.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

These American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) Clinical Guidelines are general statements. They are based upon general conclusions of health professionals who, in developing such guidelines, have balanced potential benefits to be derived from a particular mode of medical therapy against certain risks inherent with such therapy. However, the professional judgment of the attending health professional is the primary component of quality medical care. The underlying judgment regarding the propriety of any specific procedure must be made by the attending health professional in light of all of the circumstances presented by the individual patient and the needs and resources particular to the locality. These guidelines are not a substitute for the exercise of such judgment by the health professional, but rather are a tool to be used by the health professional in the exercise of such judgment. These guidelines are voluntary and should not be deemed inclusive of all proper methods of care, or exclusive of methods of care reasonably directed toward obtaining the same results.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Getting Better  
Living with Illness

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Normal requirements - adults. JPEN J Parenter Enteral Nutr 2002 Jan-Feb; 26(1 Suppl): 22SA-24SA. [18 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2002 Jan-Feb

### GUIDELINE DEVELOPER(S)

American Society for Parenteral and Enteral Nutrition - Professional Association

### SOURCE(S) OF FUNDING

Not stated

### GUIDELINE COMMITTEE

Clinical Guidelines Task Force

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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#### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

#### GUIDELINE STATUS

This is the current release of the guideline.

#### GUIDELINE AVAILABILITY

Electronic copies: Not available at this time.

Print copies: Available from the American Society for Parenteral and Enteral Nutrition (ASPEN), 8630 Fenton St, Suite 412, Silver Spring, MD 20910-3805; (800) 741-8972. For details, please see the [ASPEN Web site](#).

#### AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Guidelines for the use of parenteral and enteral nutrition in adult and pediatric patients. JPEN J Parenter Enteral Nutr 2002 Jan-Feb;26(1 Suppl): 1SA-6SA.
- Nutrition care process. JPEN J Parenter Enteral Nutr 2002 Jan-Feb;26(1 Suppl): 7SA-8SA.
- Errata. JPEN J Parenter Enteral Nutr 2002 Jan-Feb;26(1 Suppl).

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#### PATIENT RESOURCES

None available

#### NGC STATUS

This summary was completed by ECRI on May 5, 2004.

#### COPYRIGHT STATEMENT

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The logo for FIRSTGOV, with "FIRST" in blue and "GOV" in red, and a small red star above the "I".

